

What is Claimed:

1. A protection system for a coin cell comprising spaced, substantially parallel and substantially co-extensive top and bottom conductive surfaces said system comprising:

5 a first insulating wafer adapted to fit over said top conductive surface of said coin cell said first wafer comprising a first opening;

a second insulating wafer adapted to fit over a portion of said bottom conducting surface of said coin cell, said second wafer comprising an insulating area;

10 wherein said first opening in said first wafer and said insulating area of said second wafer are positioned and shaped such that when the two wafers are placed over the coin cell with the top wafer and the insulating area on the top and bottom conductive surfaces respectively, the insulating area extends fully under the first opening.

15 2. The protection system of claim 1 further comprising a tab connecting said first wafer and said second wafer.

3. The protection system of claim 1 wherein said insulating area is larger than an area of said first opening and comprises at least a second opening located so that when the two wafers are placed over the coin cell conductive surfaces, the first opening does not overlap the second opening.

20 4. The protection system of claim 1 wherein said first and said second wafers are generally circular each comprising a center and having dimensions commensurate with said coin cell top and bottom conducting surfaces respectively, and wherein said first wafer opening encompasses said first wafer center and second wafer comprises two openings positioned symmetrically around said second wafer center outside of said second wafer center.

5. The protection system of claim 2 wherein said tab is longer than
a thickness of said coin cell whereby when said top and said bottom wafers are
placed on said top and said bottom coin cell conducting surfaces said tab extends
from one side of said coin cell at least 1/8 inches.

5 6. The protection system of claim 3 wherein said coin cell is
designed to fit in a cell holder having upper and lower contact electrodes designed to
contact said top and bottom conductive surfaces respectively in non overlapping
areas and wherein said openings in said top and bottom wafers are positioned so that
when said insulating member is placed over a coin cell adapted to fit said coin cell
10 holder said upper and lower electrodes contact said top and bottom conducting
surfaces respectively through said wafer openings when said battery is inserted in a
first orientation in said holder and contact the insulating wafer when said coin cell is
inserted in said holder in a second, inverted orientation.

15 7. A method for preventing applying a reverse polarity voltage to
an electronic circuit from a coin cell used to power said circuit the ,method
comprising:

providing a first insulating wafer over a top conductive surface of said
coin cell said first wafer comprising a first opening;

20 providing a second insulating wafer over a portion of a bottom
conducting surface of said coin cell, said second wafer comprising an insulating area;

wherein said first opening and said insulating area are located so that
when said insulating member is placed over said coin cell with said top wafer and
said insulating area opposite each other on said top and bottom conductive surfaces
respectively, said insulating area extends fully under said first opening.

25 8. A coin cell comprising a top conductive surface representing an
electrical contact of a first polarity and a substantially parallel bottom conductive
surface representing an electrical contact of a second polarity, said top conducting
surface being substantially parallel to said top conductive surface, and

a first insulating wafer on said top conductive surface covering substantially all of said top conductive surface said first insulating wafer said first insulating wafer comprising a first opening exposing a portion of said top conductive surface and

5 a second insulating wafer on said bottom conducting surface completely covering at least an area on said bottom conducting surface opposite said first opening on said top conductive surface whereby exposed areas in said top and said bottom conductive surfaces do not overlap.

9. The coin cell of claim 8 wherein said second insulating wafer
10 covers substantially all of said second conducting surface said second insulating wafer also comprising an second opening exposing a portion of said bottom conducting surface, said first opening does not overlap said second opening.

10. The coin cell according to claim 9 wherein said top surface is circular and has a center and said first opening is also circular and is located
15 substantially in the center of the top conductive surface, and wherein said bottom surface also comprises a center and the second wafer opening is an off center arcuate opening.

11. The coin cell battery according to claim 8 wherein said top surface includes a raised contact and said raised contact extends through said first
20 wafer opening.

12. The coin cell according to claim 8 wherein said first and said second insulating wafers are interconnected with a connecting tab.

13. The coin cell according to claim 12 wherein said tab extends along a side of said coin cell.

25 14. The coin cell according to claim 8 wherein said first and said second wafers are removably attached to said coin cell.

15. The coin cell according to claim 8 wherein said coin cell is designed to fit in a cell holder having upper and lower contact electrodes designed to contact said top and bottom conductive surfaces respectively and wherein said openings in said top and bottom wafers are positioned so that when said cell is inserted in a first orientation in said holder said upper and lower electrodes contact said top and bottom conducting surfaces through said first and second wafer openings respectively and contact the insulating wafer when said coin cell is inserted in said holder in a second, inverted orientation.

16. The coin cell according to claim 11 wherein said top conductive surface is substantially planar and said raised contact is attached to said planar top surface substantially on said top surface center.

17. The coin cell according to claim 9 wherein said second wafer comprises two arcuate openings located symmetrically around said bottom surface center.